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Richard P. Merry

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EXAMINER

NELSON, MICHAEL B

ART UNIT

PAPER NUMBER

1794

NOTIFICATION DATE

DELIVERY MODE

04/08/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed on 03/26/09 have been considered but are not persuasive.
2. Regarding applicant's argument that the disclosure of different thickness in the two prior art references amounts to them being taught away from each other, the examiner disagrees. As stated before, Ten Eyck discloses that for the reinforcing layer, "there is no criticality in the composition" and the only considerations listed are "tensile strength greater than that of the intumescent layer... and have some flexibility" (C5, L15-60). The examiner contends that such a disclosure does not prohibit the use of the non-intumescent mat of Rogers et al. The thickness parameter cited by the applicant is meant to be an example of one such possible thickness for Kraft paper or generic plastic film reinforcing layer and one having ordinary skill in the art would not assume that such a thickness would apply to the layer of Rogers et al, which is made of a more specific material having a particular improved functionality. One having ordinary skill in the art would have adjusted, through routine experimentation, the relative thicknesses of the intumescent and nonintumescent layers of the modified Ten Eyck reference (i.e. using the mat of Rogers et al.), in order to optimize the mounting strength, thermal conduction properties, cost of manufacturing and thermal holding properties.
3. Applicant alleges that Ten Eyck's teaching of less than 7 mil thick teaches away from that layer being more than 7 mils thick; however, the examiner notes that nowhere is it disclosed that having a thickness of greater than 7 mils would result in any detrimental properties. The fact that Ten Eyck prefers less than 7 mils thick in one example does not imply that thicknesses of more than 7 mils are detrimental.

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4. Applicant mentions hindsight reasoning, however the motivation to combine the two references is explicitly stated in the Rogers reference: Rogers et al. discloses a non-intumescent inorganic fiber mat with beneficial cushioning and thermal protection properties for use with monolith exhaust systems (Fig. 1, C2, L35-51). The mounting mat of Rogers et al. is disclosed as solving the problem of inadequate surface density in fibrous mats through needlepunching to achieve surface densities of greater than  $2000 \text{ g/m}^2$  (C2, L50-68 and C6, L 27-32).

The inventions of both Ten Eyck and Rogers et al. are drawn to the field of catalytic monolith mounting mats and therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the three layer mat of Ten Eyck by using the inorganic fiber mat material of Rogers et al. as the non-intumescent layer material for the purposes of imparting enhanced thermal holding properties (Rogers et al. C2, L35-51).

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL B. NELSON whose telephone number is (571) 270-3877. The examiner can normally be reached on Monday through Thursday 6AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R. Sample/  
Supervisory Patent Examiner, Art Unit 1794

/MN/  
03/30/09